In all three, there was constant bilateral myosis; in two, this symptom was more marked when the dyspnœa was more urgent. Since Pourfourd, Du Petit, Bernard, and Biffi demonstrated the influence of the sympathetic on the pupil, the action of aortic aneurisms and of other tumours on the pupil has been studied. Eulenberg, Guttmann, and others, have shown that all affections which produce compression of the sympathetic in the neck are followed by pupillary stenosis. The author has not found this symptom mentioned in isolated cardiac affections. In order to determine the clinical value of myosis of cardiac origin, its origin and mechanism must be studied. It is a paralytic myosis. It may arise from three sorts of lesion: 1, lesions of the cervical cord; 2, lesions of the superior cervical ganglia; 3, of the terminal filaments of the sympathetic which go to the radial fibres of the iris. We must here dwell on the lesion of the superior cervical ganglion. The author has examined with the microscope the sympathetic and many sections of the cervical spinal cord of the patients in question. He has found great hyperæmia of the ganglia of the sympathetic, with more or less intense infiltration of the lymphoid elements. At the same time, the tissue of the ganglia was softer and more infiltrated with fluid than in the normal state. The upper part of the cord presented no similar condition; nor was there any reason to admit an isolated lesion of the terminal sympathetic nerves of the iris. These different lesions are the consequence of the stasis of the blood produced by the state of the heart. They exist, probably, in all patients of this class, but are not always manifest. The disorders which have their source in the sympathetic are comparable to those which proceed from the encephalon or from the spinal marrow. In certain patients with cardiac disease, cerebral excitement is found; in others, somnolence. Myosis has a very distinct significance; it does not only indicate stasis of the blood, but a profound lesion of the ganglionic cells, thenceforth paralyzed. The ganglionic lesion affects equally the heart and the lung, to the innervation of which the ganglionic cells contribute. The cardiac activity and pulmonary circulation are therefore more seriously affected than in other cases, when myosis exists. The author draws from these facts the following conclusion from the point of view of prognosis. Myosis in affections of the heart is a symptom of very grave prognostic value. It announces the presence of a lesion of the ganglia of the sympathetic, which tells upon the heart itself and the lungs.—*Brit. Med. Journ.*, Sept. 25, from *Annali Universali di Medicina.*

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30. *Paracentesis of the Pericardium.*—M. H. ROGER has made an elaborate report to the French Academy of Medicine on a case of puncture of the pericardium communicated by Dr. Chairo, in which he gives an instructive account of pericardial effusions and their surgical treatment. The results of paracentesis of the pericardium, Mr. Roger states are disastrous. He is able to find but five cases of incomplete and one of complete cure effected by it. He concludes that notwithstanding the progress of operative surgery, the puncture of the pericardium is an extremely hazardous procedure; notwithstanding, however, its real danger, it may be resorted to in certain cases, rather as a palliative measure than with the hope of effecting a cure.—*Gazette Hebdom. de Méd. et de Chirurg.*, Nov. 5, 1875.

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31. *On Aortic Aneurism in the Army, and the conditions associated with it.*—Mr. F. H. WELCH read an interesting paper on this subject before the Royal Medical and Chirurgical Society (Nov. 23). The object of the paper was to endeavour, by deductions made from a series of *post-mortem* examinations conducted at the Royal Victoria Hospital, Netley, to place certain features of causation and pathology of aortic aneurism upon a basis of stability. The average death-age was 32 years; average period of service performed by the soldier, 12 years; average duration of the lesion, $1\frac{1}{12}$ years. In five instances, the dilatation was multiple, the largest number of aneurisms in any one case being four; and, in two instances, an innominate aneurism was superadded to the aortic sac. The lesions (otherwise than the sac itself) observable in the bodies were arranged under two heads; (*a*) those mechanically produced by the aneurism; and (*b*) those indicative of a diathesis or general internal agency

generally syphilitic. The author stated that statistics of aortic aneurism in the army showed that the disease was not peculiar to climate, station, or occupation, nor connected with age or any condition of system brought about by length of service; and upon this negative basis was superadded the positive basis furnished by the morbid anatomy and life-history of the cases comprised in the paper. The deductions arrived at were placed in the form of two propositions, the first of which referred to the condition of the vessel, and was as follows: "The aneurismal tumours are associated with, and preceded by, a diseased condition of the contiguous layers of the internal and middle coats of the vessel: a tissue-growth, terminating in degeneration, which, by impairing the elasticity and contractility of the walls, allows their expansion and dilatation under the tension of normal arterial blood-pressure, or this abnormally increased by any cause." The term "atheroma" was regarded as unsatisfactory, as it expressed one possible phase only—that of degeneration; and allowed the accumulation, under the same nomenclature, of structural changes, divergent in origin and progress. Two forms of deterioration were embraced by it; one a distinct tissue-growth—an endarteritis, an active lesion—having, as one of its sequelæ, the aneurismal sac; the other, a mere opacity or occasional fatty degeneration of the inner surface of the vessel—a passive phase—followed, apparently, by no very deleterious results between eighteen and forty years of age, the period of the soldier's service. The pathological chain of continuity between the aortic disease, characterized by a tissue-growth, and the aneurismal sac, was complete; and hence the important problem in etiology was to elucidate the exciting agencies in the development of the endarteritis of the internal and middle coat; and these were given in the second proposition as follows: "These two forms of textural derangement of the aorta" (the two spoken of as included under "atheroma") "are dissimilar in origin and causation. The limited passive opacity is connected with long-standing diseases of various kinds, inducing a diminished vitality of the system at large; the structural growth is, in the major number of instances, associated with syphilis, and, in a minor degree, with rheumatism and alcoholism as causation. Hence it follows that, as the latter phase is the commencement of that pathological sequence of events under one aspect, terminating as aneurism, the means for the prevention of the aneurismal tumour must be essentially directed towards the elimination of these special exciting agencies." The 34 cases of aneurism analyzed stood as follows. In 50 per cent., the subjects were saturated with the syphilitic virus, and had no other diseased conditions of importance; in 14 per cent., syphilis was probably present, but not beyond doubt; in 5.8 per cent., there was acute rheumatic diathesis; in 5.8 per cent., excessive intemperance; in 2.9 per cent., syphilis, rheumatism, and alcoholism combined; in 17.64 per cent., there was absence of information as to any known conditions; and in 2.9 per cent., no associated condition could be elucidated. A table was also given to show the associated systemic conditions of the aortic lesion, as exemplified in 117 cases as follows: 46.1 per cent. in undoubtedly syphilitic subjects; 6.8 per cent. probably syphilitic, but not beyond doubt; 21.3 per cent. in phthisical subjects; 14.2 with no records for determination; 5.9 with heart-disease; 5.7 with various other diseases individually small. The table included both forms of the aortic disease; the active growth as well as the passive degeneration; but showed a great preponderance with syphilis. The lesions were separated as follows. In 56 cases of syphilis terminating fatally through special lesions, 60.7 per cent. illustrated aortic nodulation, the major part of a severe type; and in about one-third of these (*i. e.*, 18 out of 56), the vessel-disease had led to dilatation, more or less pronounced: that is to say, were in the infantile stage of aneurism. Adding these infantile aneurisms, and including one infantile aneurism subsequently mentioned as due to the acute rheumatic diathesis, to the 34 of this paper, the total was 53; and of these, 66 per cent. occurred in subjects infected with syphilis, but with no other diseased conditions to neutralize the deductions. Again, in 106 *post-mortem* examinations, the non-existence of syphilis was fairly deducible, and the following results were obtained. Five cases of aneurism were present, which were included in the table under acute rheumatism, intemperance, and no known cause. The aortic disease in one instance was severe, and had led to dilatation, in an acute rheumatic diathesis with great intemperance; in five, the inner wall of the vessel was corrugated, but not dilated; three were phthisical; one had alcoholism: one had aortic valve-disease; in 29, the lesion had the form of atheroma, or mere opacity; and of these, 15 were associated with phthisis, and the remainder with renal affections, dysentery, diabetes, scrofula, lupus, and cancer, in nearly equal proportions. The author inferred that the syphilitic virus must be regarded as a very potent cause of the arterial lesion, and its sequel, aneurism; but not as the only one, for the acute rheumatic poison and alcohol must be regarded as minor agencies. The chest-constrictions to which the soldier was liable from accoutrements, pack, etc., acted as fostering influences to the diseased conditions engendered by syphilis, rheumatism, and alcoholism, probably inducing dilatation in the deteriorated vessel, though no such result might ensue under ordinary circumstances, and under such amounts of physical exertion as pertained to the civil portion of the community. With regard to the adoption of preventive measures against aneurism, the author remarked that attention must be primarily directed to the suppression of the causes of the aortic disease, notably syphilis; and, secondarily, against the conditions of dress, etc., which assisted in its development.—*Brit. Med. Journ.*, Nov. 27, 1875.

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32. *Digestive Power of the Gastric Juice in Dyspepsia.*—In a paper bearing the above title, read at the meeting of the German *savants* at Gratz (*Wien. Med. Zeitung*), Prof. LEUBE, of Erlangen, observed that it is well known that, in order to render the process of digestion regular, a certain amount of the two constituents of the gastric juice—hydrochloric acid and pepsin—must be present, dyspepsia resulting where this is not the case. He has convinced himself that, in the majority of cases in which this is produced, a deficiency of the acid is the cause of such disturbance of digestion. A very minute quantity of pepsin will suffice for the digestion of a large amount of albumen, provided a sufficient quantity of acid be present; but for the actual demonstration that the difficiency of the acid is the cause of the difficulty, properly directed experiments have hitherto been wanting. Prof. Leube has, however, contrived a simple procedure for this purpose. Having prevented the person to be experimented upon from eating anything the previous evening, next morning he washes out the empty stomach with some lukewarm water, which is found to be in a clear and neutral condition. About 750 grammes of barley-broth (*Graupensuppe*) are then administered, care being taken that the individual does not masticate, so that no saliva may enter the stomach; and, after ten minutes, this is withdrawn by means of the stomach-pump, filtered, and examined for an acid reaction. The experiment was tried on four persons—one in good health, two dyspeptics, and a drunkard. The degree of acidity was estimated by a solution of soda, thirty parts being required for neutralization in the healthy person, and nearly one-half that quantity in the dyspeptics, the fluid being neutral in the drunkard, who was suffering from chronic stomach disease. Microscopic slices, of exactly the same size, of a hard-boiled egg were introduced into the fluid extracted from the stomach, and artificial digestion set on foot at a temperature of 35° C. In about six hours the slices were entirely dissolved in the fluid derived from the healthy stomach. In one of the dyspeptics the albumen remained quite unchanged at the end of fourteen hours, and was visibly and plainly acted upon only after twenty-four hours. In the drunkard no influence was recognizable at the end of three days. In all these instances the addition of small quantities of the acid greatly expedited digestion, though in very different degrees.

The conclusion to be drawn is, that in cases of disturbed digestion the mucous membrane of the stomach secretes less acid than in health, and that the digestive powers of the organ can be strengthened by administering this substance. As an example of what may be done in this way, there may be mentioned the case of a patient suffering from dilatation of the stomach, in whom the contents of the organ removed by the pump every evening always exhibited flesh-food eaten seven hours previously in an undigested condition. When, however, eight